

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

In the claims:

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1. (Currently Amended) A method for identifying an amino acid sequence from the *N. meningitidis* serogroup B strain MC58 genome, comprising the steps of:

providing a computer database comprising the *N. meningitidis* serogroup B strain MC58 genome sequence of SEQ ID NO:1;

searching for putative open reading frames or protein-coding sequences within [[a]] the computer database containing SEQ ID NO:1; and

identifying an amino acid sequence corresponding to the searched putative open reading frames or protein-coding sequences; and

outputting the identified amino acid sequence to a user display or to a computer readable media.

2. (Previously Presented) A method according to claim 1, wherein the searching comprises the steps of:

searching the computer database containing SEQ ID NO:1 for an initiation codon; and

searching for an in-frame termination codon downstream of the initiation codon.

3. (Withdrawn) A method for producing a protein, comprising the step of expressing a protein comprising an amino acid sequence identified according to claim 1.

4. (Withdrawn) A method for identifying a protein in *N. meningitidis*, comprising the steps of producing a protein according to claim 3, producing an antibody which binds to the protein, and determining whether the antibody recognizes a protein produced by *N. meningitidis*.

5. (Withdrawn) Nucleic acid comprising an open reading frame or protein-coding sequence identified by a method according to claim 1.

6. (Withdrawn) A protein obtained by the method of claim 3.

7. (Withdrawn) Nucleic acid comprising one or more of the *N. meningitidis* nucleotide sequences selected from the group consisting of SEQ ID NO 1 and the NMB open reading frames.

8. (Withdrawn) Nucleic acid comprising a nucleotide sequence having greater than 50% sequence identity to a nucleotide sequence selected from the group consisting of SEQ ID NO 1 and the NMB open reading frames.

9. (Withdrawn) Nucleic acid comprising a fragment of a nucleotide sequence selected from the group consisting of SEQ ID NO 1 and the NMB open reading frames.

10. (Withdrawn) Nucleic acid according to claim 9, wherein the fragment is unique to the genome of *N. meningitidis*.

11. (Withdrawn) Nucleic acid complementary to the nucleic acid of claim 7.

12. (Withdrawn) A protein comprising an amino acid sequence encoded within one or more of the *N. meningitidis* nucleotide sequences selected from the group consisting of SEQ ID NO 1 and the NMB open reading frames.

13. (Withdrawn) A protein comprising an amino acid sequences having greater than 50% sequence identity to an amino acid sequence encoded within one or more of the *N. meningitidis* nucleotide sequences selected from the group consisting of SEQ ID NO 1 and the NMB open reading frames.

14. (Withdrawn) A protein comprising a fragment of an amino acid sequence encoded within one or more of the *N. meningitidis* nucleotide sequences selected from the group consisting of SEQ ID NO 1 and the NMB open reading frames.

15. (Withdrawn) Nucleic acid encoding a protein according to claim 6.

16. (Withdrawn) A computer, a computer memory, a computer storage medium or a computer database containing the nucleotide sequence of a nucleic acid according to claim 8.

17. (Withdrawn) A computer, a computer memory, a computer storage medium or a computer database containing one or more of the *N. meningitidis* nucleotide sequences selected from the group consisting of SEQ ID NO 1 and the NMB open reading frames.

18. (Withdrawn) A polyclonal or monoclonal antibody which binds to a protein according to claim 6.

19. (Withdrawn) A nucleic acid probe comprising nucleic acid according to claim 5.

20. (Withdrawn) An amplification primer comprising nucleic acid according to claim 5.

21. (Withdrawn) A composition comprising nucleic acid according to claim 5.

22-23 (Canceled)

24. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 21.

25. (Withdrawn) A method for producing a protein, comprising the step of expressing a protein comprising an amino acid sequence identified according to claim 2.

26. (Withdrawn) A method for identifying a protein in *N. meningitidis*, comprising the steps of producing a protein according to claim 25, producing an antibody which binds to the protein, and determining whether the antibody recognizes a protein produced by *N. meningitidis*.

27. (Withdrawn) Nucleic acid comprising an open reading frame or protein-coding sequence identified by a method according to claim 2.

28. (Withdrawn) A protein obtained by the method of claim 25.

29. (Withdrawn) Nucleic acid encoding a protein according to claim 28.

30. (Withdrawn) A computer, a computer memory, a computer storage medium or a computer database containing the nucleotide sequence of a nucleic acid according to claim 9.

31. (Withdrawn) A computer, a computer memory, a computer storage medium or a computer database containing the nucleotide sequence of a nucleic acid according to claim 10.

32. (Withdrawn) A computer, a computer memory, a computer storage medium or a computer database containing the nucleotide sequence of a nucleic acid according to claim 11.

33. (Withdrawn) A polyclonal or monoclonal antibody which binds to a protein according to claim 28.

34. (Withdrawn) A polyclonal or monoclonal antibody which binds to a protein according to claim 12.

35. (Withdrawn) A polyclonal or monoclonal antibody which binds to a protein according to claim 13.

36. (Withdrawn) A polyclonal or monoclonal antibody which binds to a protein according to claim 14.

- 37. (Withdrawn) A nucleic acid probe comprising nucleic acid according to claim 27.
- 38. (Withdrawn) A nucleic acid probe comprising nucleic acid according to claim 7.
- 39. (Withdrawn) A nucleic acid probe comprising nucleic acid according to claim 8.
- 40. (Withdrawn) A nucleic acid probe comprising nucleic acid according to claim 9.
- 41. (Withdrawn) A nucleic acid probe comprising nucleic acid according to claim 10.
- 42. (Withdrawn) A nucleic acid probe comprising nucleic acid according to claim 15.
- 43. (Withdrawn) A nucleic acid probe comprising nucleic acid according to claim 29.
- 44. (Withdrawn) An amplification primer comprising nucleic acid according to claim 27.
- 45. (Withdrawn) An amplification primer comprising nucleic acid according to claim 7.
- 46. (Withdrawn) An amplification primer comprising nucleic acid according to claim 8.
- 47. (Withdrawn) An amplification primer comprising nucleic acid according to claim 9.
- 48. (Withdrawn) An amplification primer comprising nucleic acid according to claim 10.
- 49. (Withdrawn) An amplification primer comprising nucleic acid according to claim 15.
- 50. (Withdrawn) An amplification primer comprising nucleic acid according to claim 29.
- 51. (Withdrawn) A composition comprising nucleic acid according to claim 27.
- 52. (Withdrawn) A composition comprising nucleic acid according to claim 7.
- 53. (Withdrawn) A composition comprising nucleic acid according to claim 8.

- 54. (Withdrawn) A composition comprising nucleic acid according to claim 9.
- 55. (Withdrawn) A composition comprising nucleic acid according to claim 10.
- 56. (Withdrawn) A composition comprising nucleic acid according to claim 15.
- 57. (Withdrawn) A composition comprising nucleic acid according to claim 29.
- 58. (Withdrawn) A composition comprising protein according to claim 12.
- 59. (Withdrawn) A composition comprising protein according to claim 13.
- 60. (Withdrawn) A composition comprising protein according to claim 14.
- 61. (Withdrawn) A composition comprising an antibody according to claim 18.
- 62. (Withdrawn) A composition comprising an antibody according to claim 33.
- 63. (Withdrawn) A composition comprising an antibody according to claim 34.
- 64. (Withdrawn) A composition comprising an antibody according to claim 35.
- 65. (Withdrawn) A composition comprising an antibody according to claim 36.
- 66. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 51.
- 67. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 52.
- 68. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 53.

69. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 54.

70. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 55.

71. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 56.

72. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 57.

73. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 58.

74. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 59.

75. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 60.

76. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 61.

77. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 62.

78. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 63.

79. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 64.

80. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 65.

81. (Withdrawn) A method for detecting *N. meningitidis* antigens comprising contacting an antibody according to claim 18, 33, 34, 35, or 36 with a biological sample under conditions suitable for the formation of complexes between said antigens and said antibodies, and detecting said complexes.

82. (Withdrawn) A method for detecting antibodies that selectively bind to *N. meningitidis* antigens comprising contacting a protein according to claim 6, 12, 13, 14 or 28 with a biological sample under conditions suitable for the formation of complexes between said protein and said antibodies, and detecting said complexes.